

**FIRE DEPARTMENT MECHANIC
STUDY GUIDE**

A written examination for the class of **FIRE DEPARTMENT MECHANIC** to be administered in **MONROE** on **MAY 12, 2010**, will consist of approximately 100 multiple-choice questions. The examination will test your knowledge in the following subject areas:

SUBJECT AREA/KNOWLEDGE	APPROXIMATE % OF EXAM
SUSPENSION AND BRAKE SYSTEMS Knowledge of suspension and brake systems sufficient to perform maintenance, make repairs, or adjust the systems when needed.	6.0%
HEATING/AIR CONDITIONING/COOLING SYSTEMS Knowledge of heating, air conditioning and cooling systems sufficient to perform maintenance and repair when needed.	10.0%
DRIVE TRAIN SYSTEMS Knowledge of drive train systems sufficient to perform maintenance, repairs or adjustments to the system when needed.	5.0%
ELECTRICAL SYSTEMS Knowledge of electrical systems sufficient to perform maintenance, repairs or adjustments to the system when needed.	5.0%
FUEL SYSTEMS Knowledge of fuel systems sufficient to perform maintenance, repairs or adjustments to the system when needed.	5.0%
LUBRICATING SYSTEMS Knowledge of lubricating systems sufficient to perform maintenance, repairs or adjustments to the system when needed.	5.0%
ENGINE MECHANICS Knowledge of gasoline and diesel engines sufficient to perform diagnosis of mechanical problems and to perform maintenance and repair.	5.0%

SUBJECT AREA/KNOWLEDGE	APPROXIMATE % OF EXAM
<p>GENERAL AUTOMOTIVE MAINTENANCE/AUTOMOTIVE MAINTENANCE INSTRUMENTS</p> <p>Knowledge of automobiles and automotive maintenance instruments sufficient to determine what repairs are needed and how to perform these repairs and other general maintenance tasks.</p>	6.0%
<p>MAINTENANCE OF VEHICULAR EQUIPMENT AND ACCESSORIES</p> <p>Knowledge of equipment and accessories sufficient to perform maintenance and repairs on fire apparatus and fire fighting equipment, including verifying that equipment is tested and meets applicable standards.</p>	10.0%
<p>BUILDING MAINTENANCE</p> <p>Knowledge of basic principles of building construction, including making minor repairs to building components.</p>	6.0%
<p>PORTABLE EQUIPMENT/SMALL POWER TOOLS</p> <p>Knowledge of the tools and equipment necessary to inspect and make minor repairs to portable equipment, small power tools; and knowledge of fire apparatus sufficient to repair or perform maintenance, including rotary gear, pumps, water towers, aerial ladders, and hydraulic systems.</p>	5.0%
<p>MANAGING EQUIPMENT/PROPERTY/SUPPLIES</p> <p>Knowledge of the management and maintenance of equipment, property, and supplies, including inventory control and verifying that equipment is tested and meets applicable standards; and knowledge of purchasing of equipment, including preparation of specifications on new equipment for public bids.</p>	9.0%
<p>RECORDS/REPORTS</p> <p>Knowledge of effective records-keeping practices, including preparation, content, format, control, and retention; and knowledge of effective report preparation procedures, including the compilation, analysis, and organization of data into an effective written format for reports.</p>	9.0%

SUBJECT AREA/KNOWLEDGE	APPROXIMATE % OF EXAM
PUBLIC RELATIONS Knowledge of effective public relations practices which foster a positive public image of the department through contact with the general public.	5.0%
SUPERVISION Knowledge of the practices and techniques used in effective supervision in order to plan, organize, direct, and evaluate the work of subordinates.	9.0%

REFERENCE LIST

While the entire list of reference material will be useful to you in your preparation for the upcoming examination, the **majority** of test questions are sourced from those references listed under the Primary List.

PRIMARY REFERENCE MATERIAL

MODERN AUTOMOTIVE TECHNOLOGY, James E. Duffy, The Goodheart-Willcox Co., Inc., 2004.

EFFECTIVE SUPERVISORY PRACTICES, International City Management Association (ICMA), 1120 G Street, N.W., Washington, D.C. 20005, 4th ed., 2005.

NOTE: Obtain through LSU Firemen Training Program or IFSTA Fire Protection Publications.

INTERNATIONAL FIRE SERVICE TRAINING ASSOCIATION (IFSTA)/ FIRE PROTECTION PUBLICATIONS (Training Manuals):

Fire Hose Practices, 8th ed., 2004.
 Essentials of Firefighting, 4th ed., 1998.
 Pumping Apparatus Driver/Operator, 2nd ed., 2006.
 Aerial Apparatus Driver/Operator Handbook, 1st ed., 2000.

ADVANCED SUPERVISORY PRACTICES, International City/County Management Association, 777 N. Capitol Street N.E., Suite 500, Washington, D.C. 20002-4201, 1992.

REFRIGERATION AND AIR CONDITIONING, Air-Conditioning and Refrigeration Institute (ARI), 1501 Wilson Boulevard, 6th Floor, Arlington, VA 22209-2403, Published by: Prentice

Hall, Upper Saddle River, NJ, 3rd Ed., 1997.

The local civil service board should make this study guide available to all applicants in whatever manner the board deems appropriate.

While there are no provisions requiring this office to provide study guides for any competitive or promotional examinations, such material will be provided as a service to assist applicants in preparing for an examination. The State Examiner's office has no control whatsoever over the local availability of reference material(mentioned in the study guides), nor do we feel constrained to limit examination questions to only that material which is available locally. Examination content, weighting of subject areas, and length of examination, may vary with each administration of an examination to reflect any updated job analysis information. Percentages and numerical estimations are provided as approximations.